

## **LISTING OF THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Claim 1 (Canceled)**

### **Claim 2 (Currently Amended)**

An electronic ballast control for controlling a power switch in an electronic ballast to switch power to a load, comprising:

a storage device for storing parameters to operate ballast control components;

a control device coupled to the storage device for reading parameters from the storage device and providing the parameters to the ballast control components;

an oscillator coupled to the control device for receiving the parameters from the control device and providing an oscillation signal based on the received parameters;

an output section coupled to the oscillator and operable to receive the oscillation signal and produce signals for operating the power switch;

wherein the control is implemented as a single integrated circuit; and

~~The control according to claim 1,~~ further comprising a minimum frequency signal applied to the oscillator to determine a minimum oscillation frequency provided by the oscillator.

### **Claim 3 (Original)**

The control according to claim 2, further comprising a passive component coupled to the oscillator to provide the minimum frequency signal.

### **Claim 4 (Currently Amended)**

The control according to claim 2 ~~±~~, further comprising an input device coupled to the storage device for inputting data to the storage device.

**Claim 5 (Original)**

The control according to claim 4, further comprising an input data to the input device, wherein the input device is operable to translate the input data to a format suitable for input to the storage device.

**Claim 6 (Canceled)**

**Claim 7 (Currently Amended)**

The control according to claim 2 ~~±~~, wherein the storage device is a digital storage device.

**Claim 8 (Currently Amended)**

The control according to claim 2 ~~±~~, wherein the control device is a digital control device.

**Claim 9 (Currently Amended)**

An electronic ballast control for controlling a power switch in an electronic ballast to switch power to a load, comprising:

a storage device for storing parameters to operate ballast control components;

a control device coupled to the storage device for reading parameters from the storage device and providing the parameters to the ballast control components;

an oscillator coupled to the control device for receiving the parameters from the control device and providing an oscillation signal based on the received parameters;

an output section coupled to the oscillator and operable to receive the oscillation signal and produce signals for operating the power switch;

wherein the control is implemented as a single integrated circuit; and

~~The control according to claim 1, wherein the oscillator is a digital oscillator.~~

**Claim 10 (Currently Amended)**

The control according to claim 2 ~~±~~, wherein the control device ~~or the controller~~ is

programmable with parameters from the storage device, whereby the control is operable to obtain variable operating characteristics based on parameter programming.

**Claim 11 (Previously Presented)**

An electronic ballast control for controlling a power switch in an electronic ballast to switch power to a load, comprising:

a storage device for storing parameters to operate ballast control components;

a control device coupled to the storage device for reading parameters from the storage device and providing the parameters to the ballast control components;

an oscillator coupled to the control device for receiving the parameters from the control device and providing an oscillation signal based on the received parameters; and

an output section coupled to the oscillator and operable to receive the oscillation signal and produce signals for operating the power switch,

wherein the oscillator is a digital oscillator, and

further comprising a DAC in the oscillator for converting an input digital signal to an analog signal, whereby the oscillation frequency is related to the analog signal.

**Claim 12 (Previously Presented)**

A method of operating an electronic ballast, comprising:

storing data in a storage device related to ballast control parameters;

reading data from the storage device to obtain parameters for operating the ballast control; and

applying the parameters to ballast control components to obtain selected operating points for the components, including applying a digital oscillator control signal to a digital oscillator in the control, and D/A converting said oscillator control signal to an analog signal, whereby the oscillation frequency is related to the analog signal;

whereby the ballast control outputs a control signal based on a selection of parameters applied to the components.

**Claim 13 (Original)**

The method according to claim 12, wherein storing data in the storage device further comprises applying a storage input signal to an input coupled to the storage device; and  
applying an enable signal to another input coupled to the storage device to enable the data signal to be accepted and stored by the storage device.

**Claim 14 (Original)**

The method according to claim 12, wherein the data is digital data.

**Claim 15 (Original)**

The method according to claim 14, further comprising selectively applying the digital data to the ballast control components to obtain operating set points for the ballast control.

**Claim 16 (Previously Presented)**

The method according to claim 12, further comprising applying a minimum frequency signal to said oscillator component in the ballast control to determine a relative minimum switching frequency for the ballast control.

**Claim 17 (Original)**

The method according to claim 12, further comprising providing a buffered voltage bias in the ballast control that is decoupled from an AC input.

**Claim 18 (Previously Presented)**

A method of operating an electronic ballast, comprising:  
storing data in a storage device related to ballast control parameters;  
reading data from the storage device to obtain parameters for operating the ballast control; and  
applying the parameters to ballast control components to obtain selected operating

points for the components,

whereby the ballast control outputs a control signal based on a selection of parameters applied to the components,

further comprising counting a number of events in the ballast control to determine when the number of events reach a predetermined value in a specified time period.

**Claim 19 (Previously Presented)**

A method of operating an electronic ballast, comprising:

storing data in a storage device related to ballast control parameters;

reading data from the storage device to obtain parameters for operating the ballast control; and

applying the parameters to ballast control components to obtain selected operating points for the components,

whereby the ballast control outputs a control signal based on a selection of parameters applied to the components,

further comprising timing one or more events to determine if a predetermined time duration is achieved for the one or more events.

**Claim 20 (Original)**

A ballast control IC, comprising:

a digital memory for storing control parameters;

a digital controller coupled to the memory for reading parameters from the memory;

a digital oscillator coupled to the controller for receiving a digital oscillation set point and providing an oscillation signal based on the set point.

**Claim 21 (Original)**

The IC according to claim 20, further comprising a digital counter for counting a number of events and providing an indication if a predetermined count is reached.

**Claim 22 (Original)**

The IC according to claim 20, further comprising a timer in the controller for timing an event and outputting a signal if a predetermined duration of time passes related to the event.

**Claim 23 (Currently Amended)**

An electronic ballast control for controlling a power switch in an electronic ballast to switch power to a load, comprising:

a storage device for storing parameters to operate ballast control components;

a control device coupled to the storage device for reading parameters from the storage device and providing the parameters to the ballast control components;

an oscillator coupled to the control device for receiving the parameters from the control device and providing an oscillation signal based on the received parameters;

an output section coupled to the oscillator and operable to receive the oscillation signal and produce signals for operating the power switch;

wherein the control is implemented as a single integrated circuit; and

~~The control according to claim 1,~~ further comprising an input section of said integrated circuit for inputting said parameters, said input section comprising only two pins of said integrated circuit for receiving a data signal and a clock signal, respectively.

**Claim 24 (Previously Presented)**

The control according to claim 23, wherein said input section is further for inputting a plurality of additional parameters for operating a corresponding additional plurality of said ballast control components.

**Claim 25 (Currently Amended)**

An electronic ballast control for controlling a power switch in an electronic ballast to switch power to a load, comprising:

a storage device for storing parameters to operate ballast control components;

a control device coupled to the storage device for reading parameters from the storage device and providing the parameters to the ballast control components;

an oscillator coupled to the control device for receiving the parameters from the control device and providing an oscillation signal based on the received parameters;

an output section coupled to the oscillator and operable to receive the oscillation signal and produce signals for operating the power switch;

wherein the control is implemented as a single integrated circuit; and

~~The control according to claim 1,~~ wherein said integrated circuit has a pair of shut-down pins for inputting control parameters corresponding to a pair of loads, said control parameters enabling said control to shut down if one load is removed, and/or to continue running if one load is removed, and/or to initiate a startup operation when a removed load is replaced by a new load.